

Product Specifications

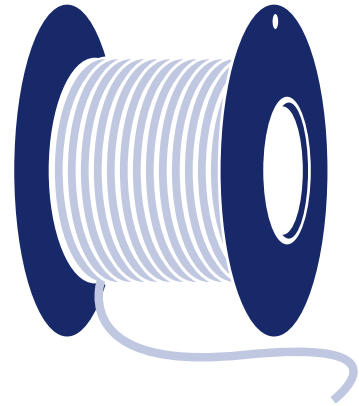
Product: 4PR 24AWG F/UTP CAT6 LSZH CLASS Eca

Description

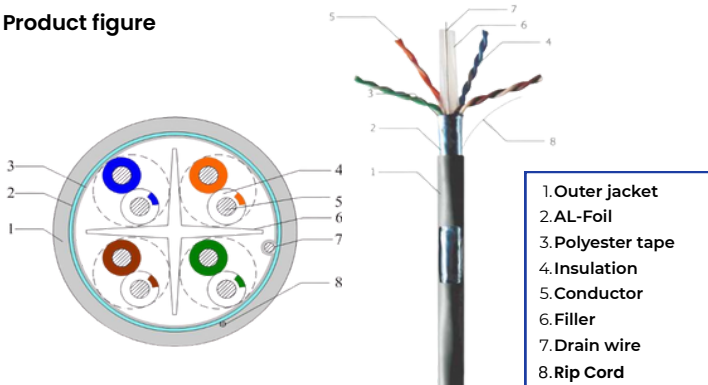
- Rated temperature: 75°C
- Reference standard: IEC 61156-5 & ISO/IEC 11801
- Flame test: IEC 60332-1, EUROCLASS Eca
- Solid bare copper conductor
- Colour-coded PE insulation
- LSZH Jacket
- Packaging: Per customer request

Application

- 100Base-T4
- 100Base-TX
- 100VG-AnyLAN
- 1000Base-T
- 1000Base-TX
- 155Mbps ATM
- 622Mbps ATM



Product figure



- Outer jacket Outer jacket material --> LSZH
- Outer jacket thickness Nom --> 0.5 mm
- Overall nominal dimension --> 7.1 ±0.3 mm
- Outer jacket rip cord --> Yes
- Outer jacket colour --> Per customer request

Physical characteristics

Structure

- Construction: F/UTP
- Number of pairs: 4 Pairs

Conductor

- AWG: 24 AWG
- Conductor material: Solid bare copper
- Conductor dimension: 0.525 ±0.02 mm

Insulation

- Insulation material: PE
- Insulation dimension: 1.08 ±0.05 mm
- Number colour (Stripe marking): **1.** White/Blue (Stripe) & Blue | **2.** White/Orange (Stripe) & Orange | **3.** White/Green (Stripe) & Green | **4.** White/Brown (Stripe) & Brown

Cabling

- Twisting lay length: $\leq 30\text{mm}$
- Cabling lay length: $\leq 200\text{mm}$

Filler

- Filler material: PE

Binder

- Binder material: Polyester tape

Shield

- Individual shield & material: N/A
- Primary overall shield & material: AL-Foil
- Secondary overall shield & material: N/A
- Shield coverage: 100%
- Drain wire Nom: 0.4 mm solid tinned copper

Mechanical characteristics

- Operating temperature range: $-20\text{ }^{\circ}\text{C} \sim +75\text{ }^{\circ}\text{C}$
- Bulk cable weight: 51 kg/km
- Max. recommended pulling tension: 110 N
- Min. bend radius (Install): 8 x O.D.
- Outer jacket tensile strength: $\geq 9\text{ MPa}$
- Outer jacket elongation: $\geq 100\%$
- Outer jacket aging condition: $100\text{ }^{\circ}\text{C} \times 168\text{ hrs}$
- After aging, Tensile strength: $\geq 70\%$ of unaging
- After aging, Elongation: $\geq 50\%$ of unaging
- Cold bend: No crack (@ $-20\text{ }^{\circ}\text{C} \times 4\text{hrs}$)

Electrical characteristics

- Nom. mutual capacitance: $\leq 5.6\text{ nF}/100\text{m}$ (@1kHz)
- Pair to ground capacitance unbalance: $\leq 1600\text{ pF}/1\text{Km}$
- Nominal velocity of propagation: 65%
- Max. delay skew 45: ns/100m
- Max. conductor DC resistance: $95\text{ }\Omega/\text{km}$ (@ $20\text{ }^{\circ}\text{C}$)
- Max. Conductor resistance unbalance: 2% (@ $20\text{ }^{\circ}\text{C}$)
- Min. insulation resistance: $5000\text{ M}\Omega\cdot\text{m}$
- Max. operating voltage - UL: 300 V

Marking

ZN500BC232★ Class Eca ZYBRNET500 F/UTP CAT.6
4PR SOLID LSZH PRESTAQ ***M

Note: 1.ZN500BC23203050==>305M (Example :jacket color gray).
2. "****" is recycled meter marking, From 305 meter down to 000 meter or 500 meter down to 000 meter . marking interval is 1m;
3.Marking color shall be blue printing . 4. Marking size: 3x2mm(Nom) .5.★ is jacket color and packing length,see table I

Electrical characteristics

Frequency	Characteristic Impedance Upper limit	Characteristic Impedance Lower limit	ATT	RL	NEXT	PS NEXT	ELFEXT	PS ELFEXT	PD
(MHz)	Zu (Ω)	Zl (Ω)	(dB/100m)	(dB Min)	(dB Min)	(dB Min)	(dB Min)	(dB Min)	(ns/100m Max)
1	---	---	---	20.0	74.3	72.3	67.8	64.8	570.0
4	115.2	86.8	3.78	23.0	65.3	63.3	55.8	52.8	552.0
8	112.6	88.8	5.32	24.5	60.8	58.8	49.7	46.7	546.7
10	111.9	89.4	5.95	25.0	59.3	57.3	47.8	44.8	545.4
16	111.9	89.4	7.55	25.0	56.2	54.2	43.7	40.7	543.0
20	111.9	89.4	8.47	25.0	54.8	52.8	41.8	38.8	542.0
25	112.9	88.5	9.51	24.3	53.3	51.3	39.8	36.8	541.2
31.25	114.1	87.7	10.67	23.6	51.9	49.9	37.9	34.9	540.4
62.5	118.3	84.5	15.38	21.5	47.4	45.4	31.9	28.9	538.6
100	121.9	82.0	19.80	20.1	44.3	42.3	27.8	24.8	537.6
150	125.7	79.6	24.71	18.9	41.7	39.7	24.3	21.3	536.9
200	128.8	77.6	28.98	18.0	39.8	37.8	21.8	18.8	536.5
250	131.5	76.0	32.85	17.3	38.3	36.3	19.8	16.8	536.3

* Cable that meet the requirements of the characteristic impedance are not required to be measured for return loss;
alternately cables that meet the return loss requirements are not required to be measured for characteristic impedance.

*ATT meets the requirement of standard IEC 61156-5 but doesn't meet the standard TIA-568-C.2.



Table I				
★ means	Jacket color		Packing length	
05000	0	Grey	5000	500M
13050	1	Red	3050	305M
23050	2	Green	3050	305M
25000	2	Green	5000	500M
33050	3	Blue	3050	305M
55000	5	Black	5000	500M
63050	6	Orange	3050	305M
03050	0	Grey	3050	305M
45000	4	Yellow	5000	500M

Revision history:

- REV.0 2012.10.12. REV.1 Add jacket material ; jacket marking and P/N. 2013.02.19. REV.2 Change marking color. 2013.03.15.
- REV.3 Change marking . 2015.07.21. REV.4 Change marking & note . 2015.09.09. REV.5 Change marking & note . 2017.07.04.
- REV.6 Change marking and note .2017.11.03
- REV.7 Change marking and note .

